



COPY OF PAPERS  
ORIGINALLY FILED

**In the claims**

Please amend claim 39.

Following is a clean version of amended claim 39, and a clean version of all the pending claims. In addition, a marked version of the amended claim showing the changes follows the Remarks section.

**Clean Version Of Amended Claim**

39. (thrice amended) A method for fabricating an interconnect for a semiconductor component having a bumped contact comprising:

providing a substrate;

forming a metal layer on the substrate;

etching the metal layer to form a plurality of leads and a connecting segment electrically connecting the leads;

etching a recess in the substrate such that the leads are cantilevered over the recess and movable within the recess to electrically engage the bumped contact, each lead having a cantilever length, a width, a thickness and a modulus of elasticity selected to provide a desired spring constant; and

forming a conductive via in the substrate in electrical communication with the connecting segment.

RECEIVED  
JUL 26 2002  
TECHNOLOGY CENTER R3700

**Clean Version Of All Pending Claims**

34. (twice amended) A method for fabricating an interconnect for a semiconductor component having a bumped contact comprising:

providing a substrate;

forming a plurality of leads on the substrate configured to electrically engage the bumped contact, each lead having a length, a width, a thickness and a modulus of elasticity selected to provide a desired spring constant; and

forming a recess in the substrate proximate to the leads such that the leads cantilever over the recess and are configured to support the bumped contact and to move within the recess.

35. (twice amended) The method of claim 34 wherein the forming the plurality of leads step comprises forming a metal layer on the substrate and then etching the metal layer.

38. (twice amended)) The method of claim 34 further comprising forming a connecting segment on the substrate for the leads and a conductive via in the substrate in electrical communication with the connecting segment.

39. (thrice amended) A method for fabricating an interconnect for a semiconductor component having a bumped contact comprising:

providing a substrate;

forming a metal layer on the substrate;

etching the metal layer to form a plurality of leads and a connecting segment electrically connecting the leads;

etching a recess in the substrate such that the leads are cantilevered over the recess and movable within the recess to electrically engage the bumped contact, each lead

having a cantilever length, a width, a thickness and a modulus of elasticity selected to provide a desired spring constant; and

forming a conductive via in the substrate in electrical communication with the connecting segment.

40. (twice amended) The method of claim 39 further comprising forming a plurality of projections in the metal layer such that each lead comprises at least one projection.

41. (twice amended) The method of claim 39 wherein the forming the conductive via step comprises laser machining an opening through the connecting segment and the substrate and at least partially filling the opening with a conductive material.

42. (amended) The method of claim 39 further comprising shaping the leads with a radius of curvature.

43. (twice amended) The method of claim 39 further comprising forming a contact pad on the substrate in electrical communication with the connecting segment and the conductive via.

49. (amended) A method for fabricating an interconnect for a semiconductor component having a bumped contact comprising:

providing a substrate;

forming a metal layer on the substrate;

etching the metal layer to form a plurality of leads configured to electrically engage the bumped contact and a connecting segment electrically connecting the leads;

forming a recess in the substrate proximate to the leads such that the leads are cantilevered over the recess

and movable within the recess to electrically engage the bumped contact;

laser machining an opening through the connecting segment and the substrate; and

depositing a conductive material in the opening to form a conductive via in electrical communication with the connecting segment.

50. (amended) The method of claim 49 further comprising forming a contact on the substrate in electrical communication with the conductive material.

51. (amended) The method of claim 49 further comprising forming an electrically insulating layer on the opening prior to the depositing the conductive material step.

52. The method of claim 49 further comprising shaping the leads with a radius of curvature corresponding to a diameter of the bumped contact.

53. A method for fabricating an interconnect for a semiconductor component having a bumped contact comprising:

providing a substrate;

forming a plurality of leads on the substrate configured to electrically engage the bumped contact;

forming a recess in the substrate proximate to the leads such that the leads cantilever over the recess and are configured to support the bumped contact and to move within the recess; and

shaping the leads with a radius of curvature corresponding to a diameter of the bumped contact.

54. The method of claim 53 further comprising forming a connecting segment electrically connecting the leads and

forming a conductive via through the substrate in electrical communication with the connecting segment.

55. The method of claim 54 wherein the forming the conductive via step comprises laser machining an opening through the connecting segment and the substrate.

56. The method of claim 55 wherein the forming the conductive via step comprises at least partially filling the opening with a conductive material.

57. The method of claim 56 wherein the forming the conductive via step comprises electrically insulating the opening.

58. The method of claim 57 wherein the substrate comprises silicon.